

Construction Safety Plans

Module 1

Building the Plan

Presented to: Airports, Consultants, Contractors

By: Safety/Standards, Western Pacific Region

Date: Workshops, Spring 2009



Federal Aviation
Administration



Overview

- **What is a Construction Safety Plan?**
- **Purpose of the Plan, and when needed**
- **What airport projects require a Construction Safety Plan?**
- **Who creates and reviews the Plan?**
- **Responsibilities of Key Players**
- **Construction Safety Plan Contents/Checklist**
- **Sample Construction Safety Plan, References**

Objective

To fully understand the purpose and components of a Construction Safety Plan, and the process for obtaining plan approval.

What is a Construction Safety Plan?

- **A document which outlines procedures, coordination, and control of construction activity on an airport**
- **A stand-alone* document that is submitted at least eight weeks prior to the intended construction start-up**

*The Construction Safety Plan must not be embedded in the plans and specs for the project, but can be included with them.

Why Prepare a Construction Safety Plan?

- **Your Program Manager must approve a Construction Safety Plan before he/she can issue a Notice To Proceed for construction.**
- **FAA Order 5100.38C (Airport Improvement Program) states: *All Safety Phasing Plans must be received, reviewed, coordinated with other FAA operating administrations, airspaced (if necessary), and approved for use prior to the start of all construction projects.***

Purpose of the Plan?

- To minimize disruption to aircraft operations
- To identify project safety concerns and avoid hazardous airport situations
- To provide a single source of procedural information for use during construction activities

When is a Construction Safety Plan Needed?

When construction activity is planned within the Air Operations Area (AOA)

What Projects Need a Construction Safety Plan?

A Construction Safety Plan is needed for:

- Airports certificated under 14 CFR Part 139
- Airports using AIP grant funds; and
- Airports that have a Passenger Facility Charge program

NOTE: A Construction Safety Plan is recommended for all other airports

Who creates it?

- The airport operator develops internally or contract out to consultant/contractor.
- If an outside source is used, the airport remains responsible for the plan.

NOTE: OSHA plans do not satisfy the requirements of a Construction Safety Plan.

Who reviews it?

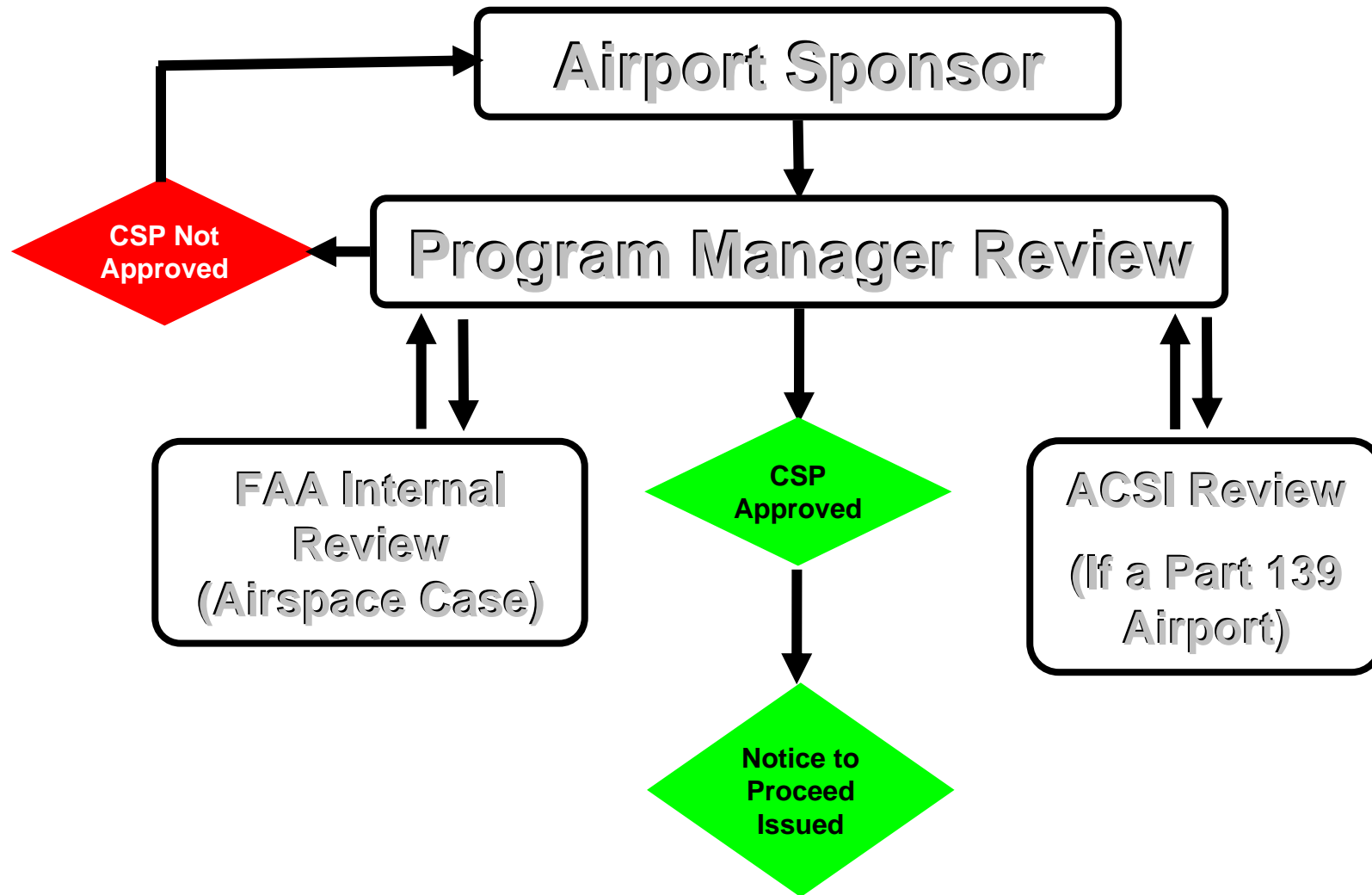
Airport Operator Reviews/Approves Plan

- The airport submits the Construction Safety Plan to the Program Manager at the Airports District Office (ADO) prior to approval.

FAA Program Manager

- Coordinates Plan with other FAA line of Business
- Coordinates Plan with the assigned Airport Safety/Certification Inspector (ACSI) for Part 139 airports

Safety Plan Review Flow-Chart



Responsibilities of Key Players

Everyone Plays a Part!

- Airport Operator
- Contractors
- Tenants

Responsibilities of Airport Operator

- *Overall responsibility for all airport construction activities*
- Develops and enforces Construction Safety Plan
- Coordinates plan with affected airport users
- Requires contractors to submit a plan to comply
- Ensures compliance with Safety and Security CFR's (i.e. Part 139, Part 1542)

NOTE: This is not a complete list of responsibilities for the airport operator.

Responsibilities of Construction Contractors

- Submit a Plan to comply to Airport operator
- Brief personnel on Construction Safety Plan
- Ensure Construction Safety Plan is available to all personnel
- Provide 24/7 points of contact
- Provide safety officer/construction inspector
- Restrict movement of construction vehicles and personnel to the construction area.

NOTE: This is not a complete list of responsibilities for the airport operator.

Responsibilities Of Airport Tenant

If construction activity is on leased property,

- Submit tenant's Construction Safety Plan to the airport operator
- Provide 24/7 points of contact
- Ensure no other persons enter the AOA unless authorized.
- Restrict movement of construction vehicles and personnel to the construction area.

NOTE: This is not a complete list of responsibilities for the airport operator.

Construction Safety Plan

Contents (AC 150/5370-2)

- ☐ **Basic Safety Plan Checklist in AC 150/5370-2**
- ☐ **Construction Safety plan needs to address:**
 - ☐ Scope of work to be performed
 - ☐ Areas/operations affected by construction
 - ☐ Location and procedures for protecting NAVAIDS
 - ☐ Procedures for protecting all runway and taxiway safety areas
 - ☐ Vehicle Control and drivers training requirements

Construction Safety Plan

Contents (cont.)

- ❑ **Construction Safety Plan needs to address:**
 - ❑ Construction vehicles/equipment marking, lighting and access control
 - ❑ Construction haul roads, site parking and stockpile area (**storage area both material and equipment**)
 - ❑ Aircraft rescue and Fire Fighting (ARFF) Notification
 - ❑ Emergency notification procedures
 - ❑ FOD and wildlife management control procedures

Construction Safety Plan

Contents (cont.)

- ☐ **Construction Safety plan needs to address:**
 - ☐ NOTAM Requirements
 - ☐ Closed Runway and Taxiway Marking and Lighting
 - ☐ Use of temporary visual aids
 - ☐ Hazardous materials (HAZMAT) management
 - ☐ Inspection requirements

Construction Safety Plan

Contents (cont.)

☐ **Construction Safety plan needs to address:**

- ☐ Barricade procedures, types, and locations
- ☐ Procedures for locating and protecting existing underground utilities, cables, wires, pipelines, and other underground facilities in excavation areas
- ☐ Procedures for contacting responsible representatives/points of contact for all involved parties

Construction Safety Plan Format

- Can be submitted on engineering drawings (see example on following slide)
- More complex construction projects, and projects at airports certificated by FAR 139 may require additional explanation or detail
- Items that need additional explanation/detail may be included on standard 8 ½ X 11 paper, and attached to engineering drawings

Reminder: Regardless of length or content, each Construction Safety Plan must be a separate document, to allow it to be appropriately handled during the review process.

Construction Safety Plan Checklist

AIRPORT IMPROVEMENT PROGRAM SAFETY/PHASING PLAN CHECKLIST					
Airport Name/Associated City		State	AIP No.		Date
Checklist for Airport Sponsor	N/A	Included		N/A	Included
1. Scope of work performed	<input type="checkbox"/>	<input type="checkbox"/>	23. Equipment storage areas identified	<input type="checkbox"/>	<input type="checkbox"/>
2. Dates for start/completion of construction work	<input type="checkbox"/>	<input type="checkbox"/>	24. Methods of separating vehicle and pedestrian construction traffic from airport movement areas	<input type="checkbox"/>	<input type="checkbox"/>
3. Notification requirements	<input type="checkbox"/>	<input type="checkbox"/>	25. Location of construction site parking, access points and haul roads	<input type="checkbox"/>	<input type="checkbox"/>
4. Filing of FAA Form 7460-1	<input type="checkbox"/>	<input type="checkbox"/>	26. Vehicle operator training	<input type="checkbox"/>	<input type="checkbox"/>
5. NOTAM Issuance	<input type="checkbox"/>	<input type="checkbox"/>	27. Radio communications	<input type="checkbox"/>	<input type="checkbox"/>
6. Inspection requirements	<input type="checkbox"/>	<input type="checkbox"/>	28. Penalty provisions for noncompliance with airport rules and regulations and the safety plan	<input type="checkbox"/>	<input type="checkbox"/>
7. Requirement for a preconstruction meeting	<input type="checkbox"/>	<input type="checkbox"/>	29. Vehicle identification	<input type="checkbox"/>	<input type="checkbox"/>
8. Procedures for protecting Runway and Taxiway Safety Areas	<input type="checkbox"/>	<input type="checkbox"/>	30. All affected NAVAID critical areas depicted	<input type="checkbox"/>	<input type="checkbox"/>
9. Procedures for protecting OFZ and OFA, and threshold citing criteria	<input type="checkbox"/>	<input type="checkbox"/>	31. Location of stockpiled construction materials	<input type="checkbox"/>	<input type="checkbox"/>
10. Runway end and proposed threshold stationing	<input type="checkbox"/>	<input type="checkbox"/>	32. Trenches and excavations and cover requirements	<input type="checkbox"/>	<input type="checkbox"/>



Construction Safety Plan Checklist

16. Responsibility for marking and lighting shown	<input type="checkbox"/>	<input type="checkbox"/>	38. Wildlife management	<input type="checkbox"/>	<input type="checkbox"/>
17. Temporary markings shown in accordance with AC 150/5340-1	<input type="checkbox"/>	<input type="checkbox"/>	39. Hazardous material (HAZMAT) management	<input type="checkbox"/>	<input type="checkbox"/>
18. Temporary lighting shown in accordance with AC 150/5340-24	<input type="checkbox"/>	<input type="checkbox"/>	40. Procedures for locating and protecting existing underground utilities/facilities in excavation areas	<input type="checkbox"/>	<input type="checkbox"/>
19. Temporary signage plan approved by FAA	<input type="checkbox"/>	<input type="checkbox"/>	41. Procedures for contacting responsible representatives of all involved parties, including FAA Tech Ops personnel	<input type="checkbox"/>	<input type="checkbox"/>
20. Procedures and equipment to delineate closed construction areas from airport operational areas	<input type="checkbox"/>	<input type="checkbox"/>	42. Procedures for pausing construction due to aircraft emergency	<input type="checkbox"/>	<input type="checkbox"/>
21. Use of temporary visual aids	<input type="checkbox"/>	<input type="checkbox"/>	43. Plan for phasing of construction	<input type="checkbox"/>	<input type="checkbox"/>
22. Affected areas and operations, including possible safety problems	<input type="checkbox"/>	<input type="checkbox"/>			
Airport Sponsor <i>certifies that the attached safety plan was developed in accordance with AC 150/5370-2</i> Certified by _____ and submitted to FAA on _____ <div style="display: flex; justify-content: space-between; width: 100%;"> Airport Sponsor Date </div>					
Comments, special conditions, other.					
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> FAA Approval Signature _____ FAA Project Manager _____ Date _____ </div> <div style="width: 45%;"> <input type="checkbox"/> N/A For Part 139 airports, attached safety plan reviewed by: _____ _____ Date _____ FAA Airport Certification Safety Inspector </div> </div>					



Construction Safety Plan Format

Ms. Project Manager
Federal Aviation Administration

Dear Project Manager

Also enclosed are 7460-1 Forms for the project. Two of the forms cover permanent apron light poles to be installed. The third form covers a temporary batch plant to be erected for the duration of the paving in this project. Please use these to conduct the FAA Airspace Review.

Sincerely,

Enclosures

Please Type or Print on This Form

Form Approved OMB No. 2120-0021

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing Of Your Notice

FOR FAA USE ONLY
Antenna Structure Number

Notice of Proposed Construction or Alteration

1. Sponsor (person, company, etc., proposing this activity)

A/cn. of _____

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Fax _____

2. Sponsor's Representative (if other than #1)

Attn. of _____

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Fax _____

3. Notice of: ☒ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☒ Temporary (Months, days) _____

5. Work Schedule: Beginning _____ End _____

6. Type: ☒ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☒ Other BATCH PLANT

7. Marking/Painting and/or Lighting Preferred:

☐ Red Lights and Paint ☐ Dual - Red and Medium Intensity White

☐ White - Medium Intensity ☐ Dual - Red and High Intensity White

☐ White - High Intensity ☐ Other _____

8. FCC Antenna Structure Registration Number (if applicable):
N/A

9. Latitude: _____ ° _____' _____"

10. Longitude: _____ ° _____' _____"

11. Datum: ☒ NAD 83 ☐ NAD 27 ☐ Other _____

12. Nearest City: _____ State: _____

13. Nearest Public-use (not private-use) or Military Airport or Heliport _____

14. Distance from #13, to Structure On Airport _____

15. Direction from #13, to Structure On Airport _____

16. Site Elevation (AMSL): _____ 739.39 ft.

17. Total Structure Height (AGL): _____ 60.00 ft.

18. Overall height (#16 + #17.) (AMSL): _____ 859.39 ft.

19. Previous FAA Aeronautical Study Number (if applicable):
N/A

N/A _____ OE _____

20. Description of Location: (Attach a USGS 7.5 minute Quadrange Map with the precise site marked and any certified survey.)

See enclosed drawings

21. Complete Description of Proposal:

This form covers the Cargo Apron Expansion project at the Indianapolis International Airport. The coordinates listed reflect the location of the batch plant staging area that is closest to Runway SR-23L.

Frequency/Power (kW)

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and wilfully violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U.S.C., section 46301 (a).

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and anchor the structure in accordance with established marking and lighting standards as necessary.

Date _____

Typed or Printed name and Title of Person Filing Notice _____

Signature _____

FAA Form 7460-1 (2-99) Supersedes Previous Edition

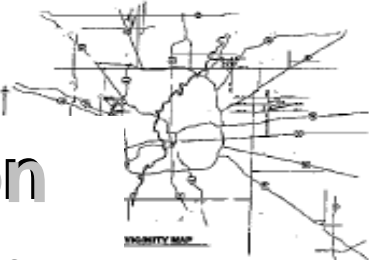
NSN 0036-01-018-0008

Construction Safety Plan


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ACME INTERNATIONAL AIRPORT	
Managed by ANYBODY LLC	
(PROJECT DESCRIPTION) CONSTRUCTION	
PHASE 1	
PROJECT NO. I-06-1	

PROJECT DESCRIPTION	
1. PROJECT NAME	
2. PROJECT LOCATION	
3. PROJECT OWNER	
4. PROJECT MANAGER	
5. PROJECT START DATE	
6. PROJECT END DATE	
7. PROJECT BUDGET	
8. PROJECT SCOPE	
9. PROJECT RISK	
10. PROJECT STATUS	
11. PROJECT CONTACT	
12. PROJECT NOTES	
13. PROJECT HISTORY	
14. PROJECT CHANGES	
15. PROJECT COMMENTS	
16. PROJECT APPROVAL	
17. PROJECT REVIEW	
18. PROJECT CLOSURE	
19. PROJECT EVALUATION	
20. PROJECT LESSONS LEARNED	



VICINITY MAP



PROJECT LOCATION

Project Description

(i.e. reconstruct and expand the Southeast Ramp)

Construction Safety Plan

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2)

3)

GROUND CONTROL FREQUENCY - 121.00
 AIR CONTROL FREQUENCY - 124.30
 MAXIMUM HEIGHT OF EQUIPMENT - 25'

POINT	LOCATION	LOCATION	ELEVATION
A			
B			

General Notes regarding project are located at margin of drawing

Example: Vehicles and equipment shall not be allowed within 53' of centerline of active taxiways, or 250' of centerline of active runways.

RESIDENT ENGINEER'S FIELD OFFICE

CONTRACTOR STAGING AND STORAGE AREA

EMPLOYEE PARKING AND STAGING AREA

EXCESS EARTHWORK DISPOSAL AREA

GENERAL NOTES

1. ALL SURVEY, DESIGN, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AIRPORT TRAFFIC SURVEY, DESIGN, AND CONSTRUCTION PLAN.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AIRPORT TRAFFIC SURVEY, DESIGN, AND CONSTRUCTION PLAN.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AIRPORT TRAFFIC SURVEY, DESIGN, AND CONSTRUCTION PLAN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
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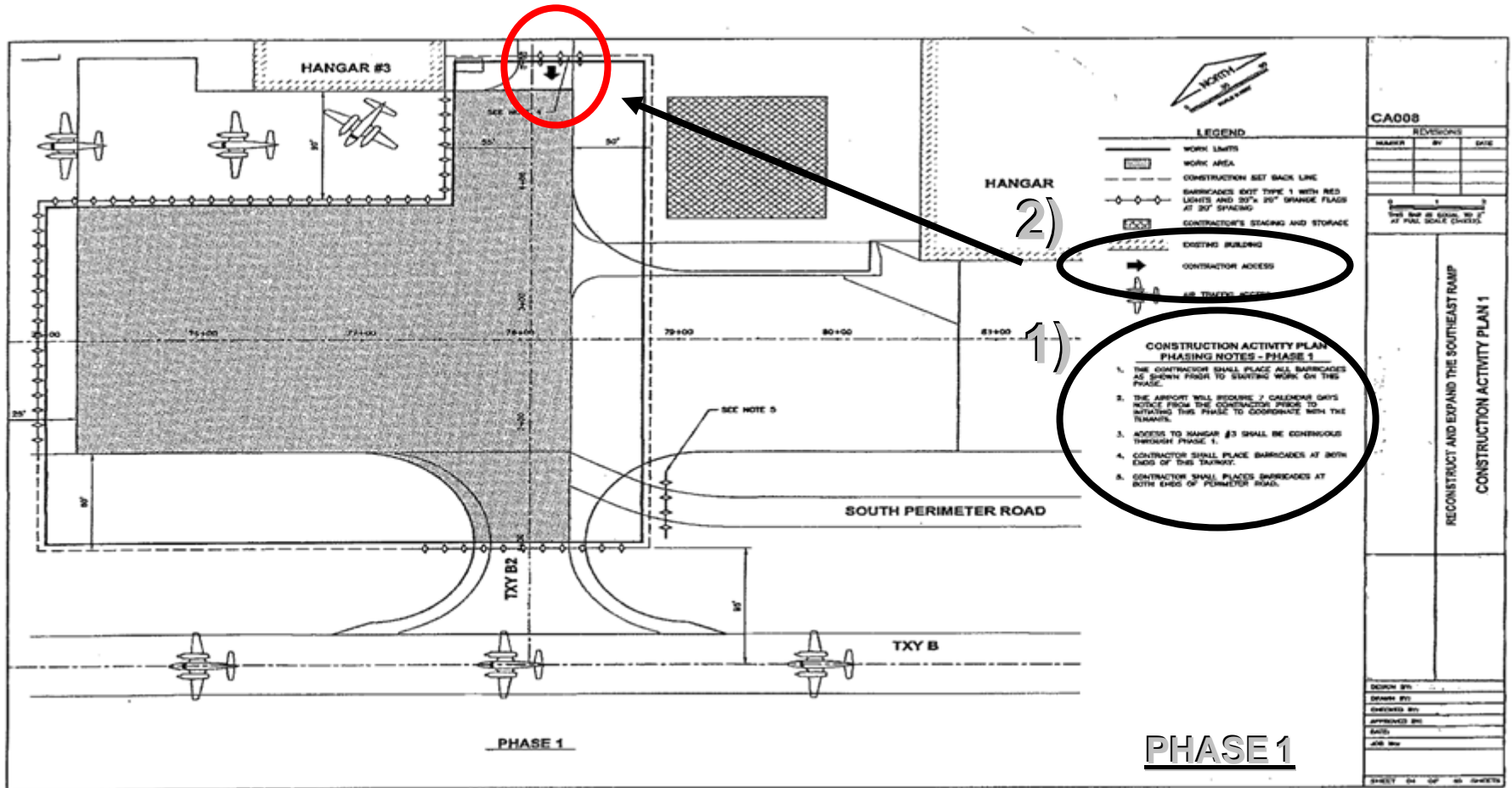
CA008
REVISIONS

NO.	DATE	BY	REVISION

RECONSTRUCT AND EXPAND THE SOUTHEAST RAMP
 AIRPORT SITE PLAN

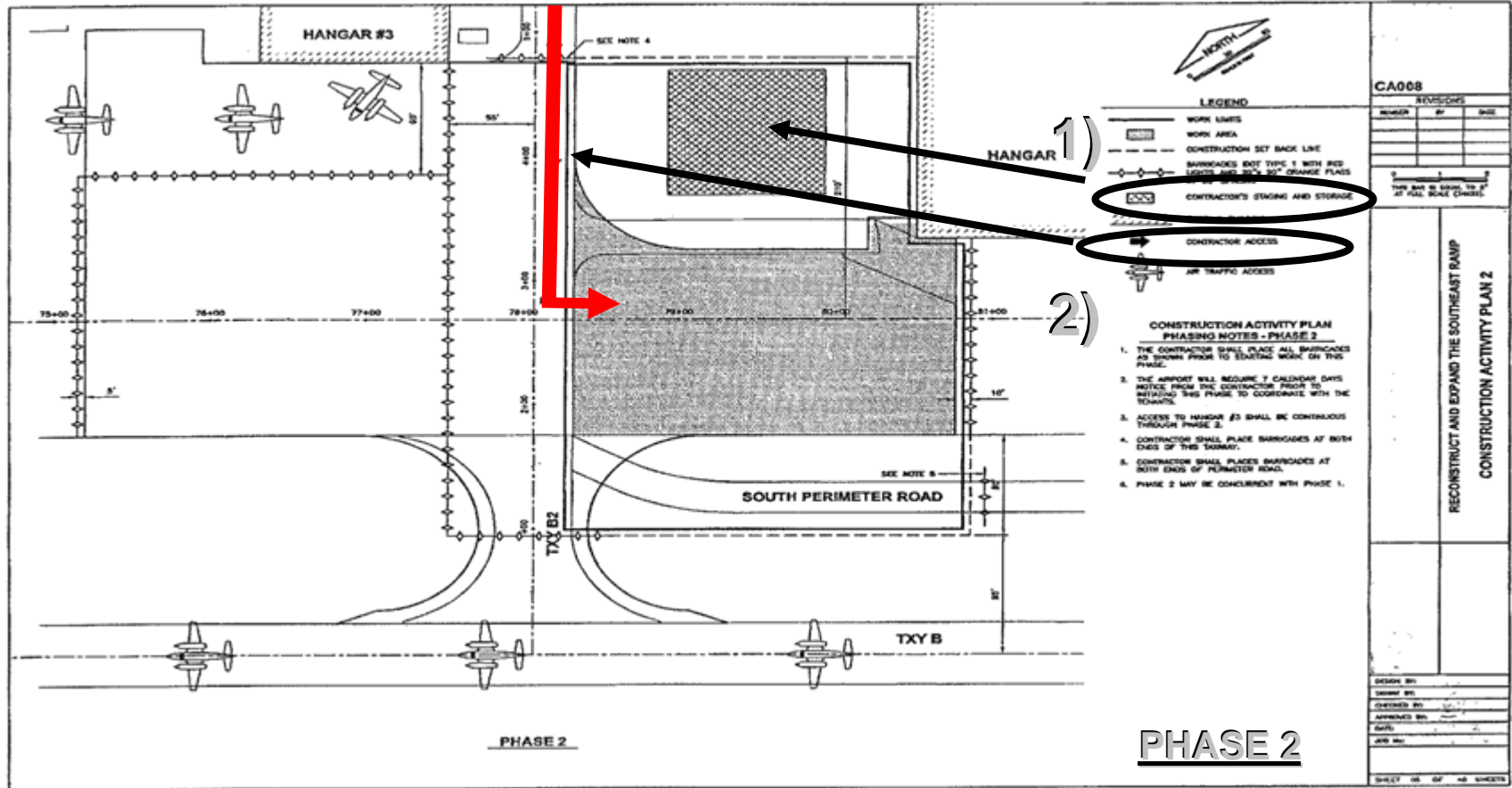
Construction Safety Plan

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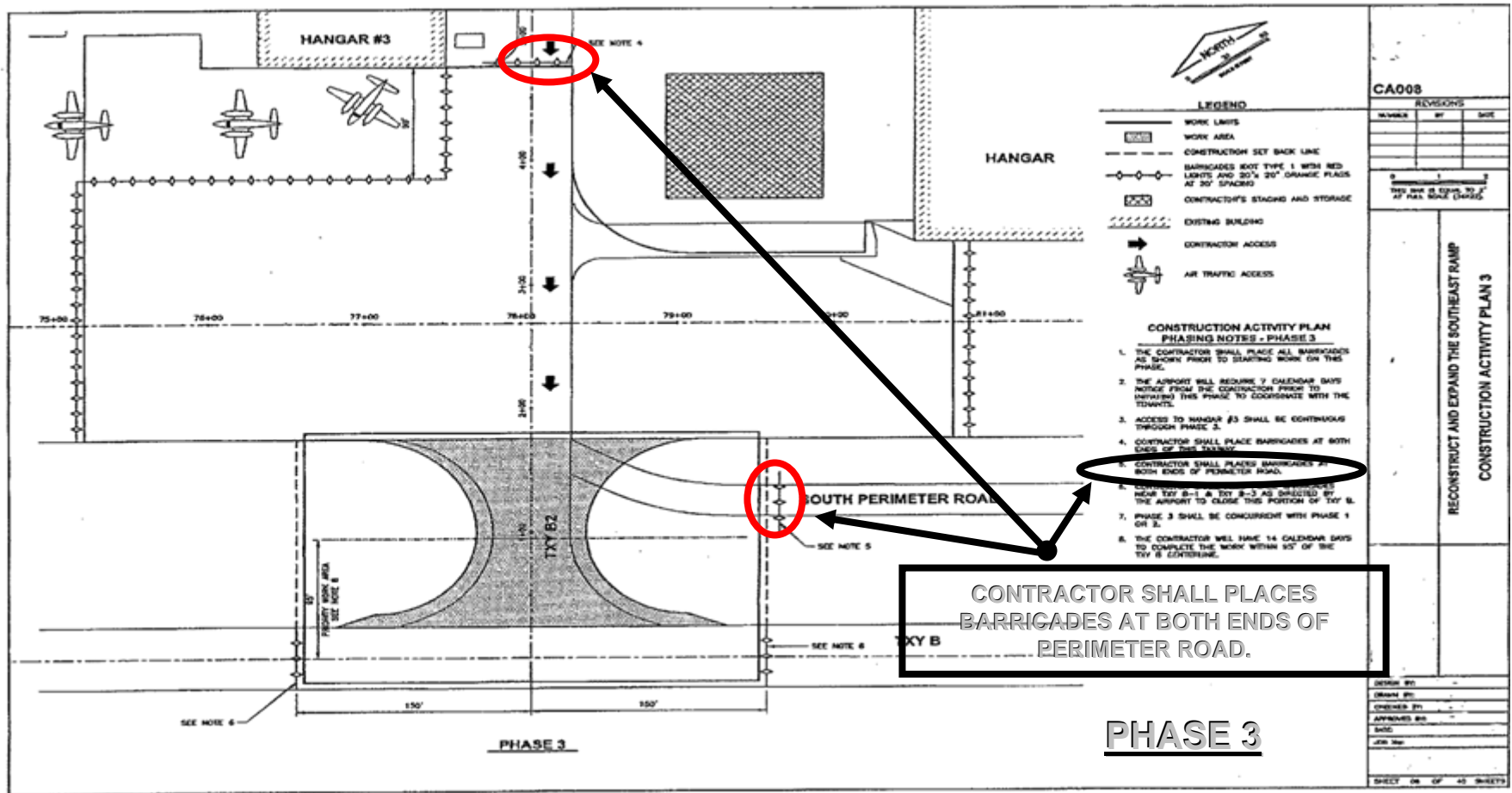
Construction Safety Plan

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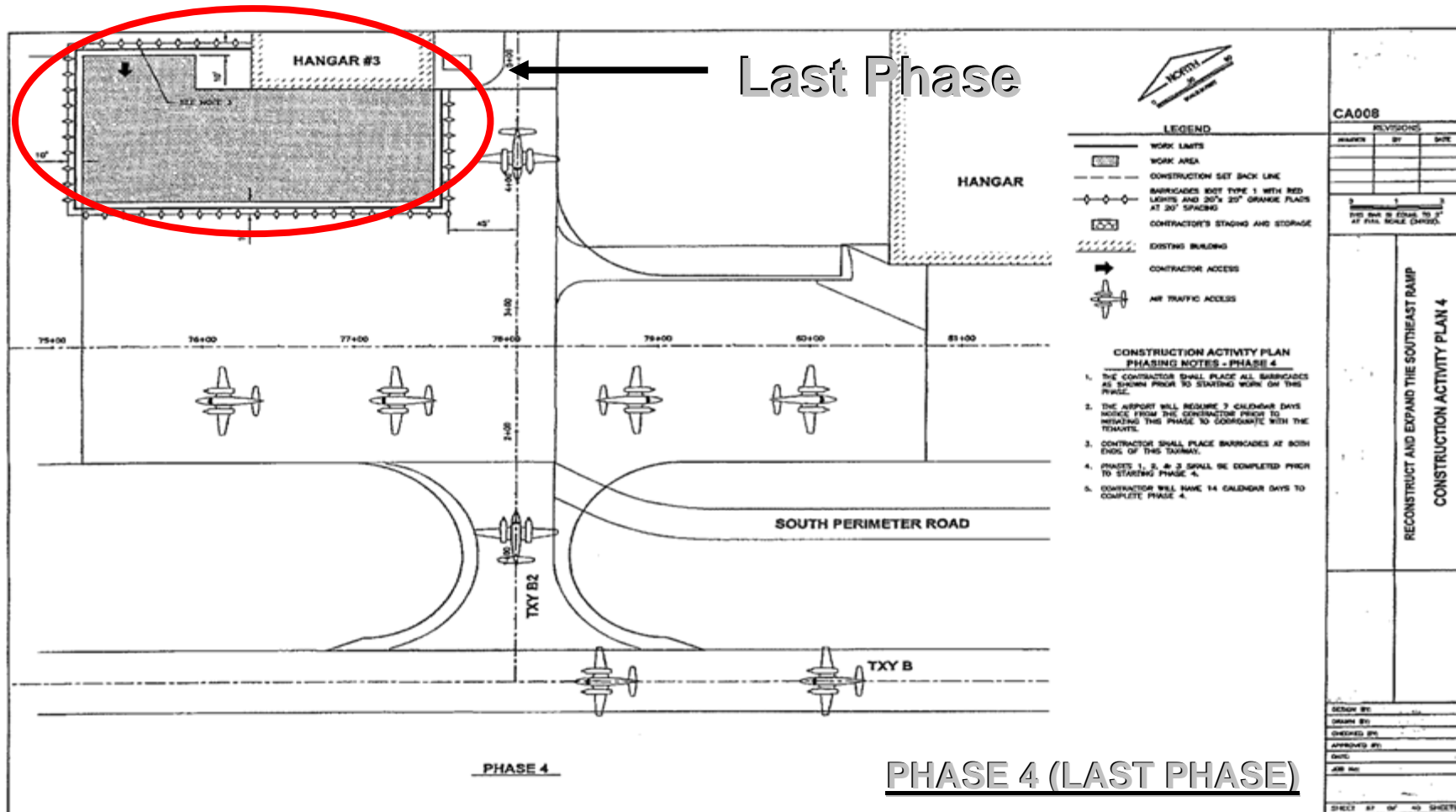
Construction Safety Plan

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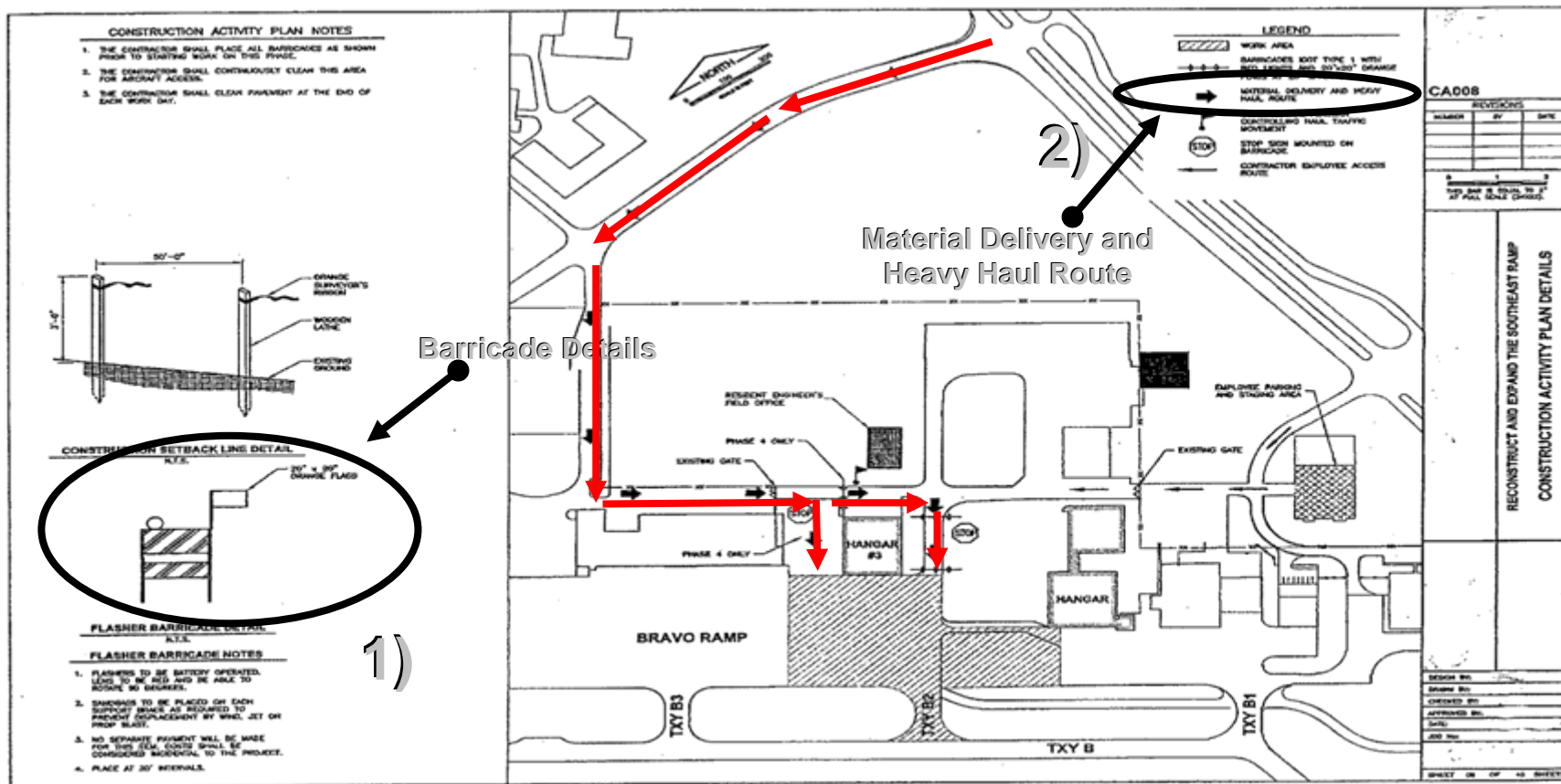
Construction Safety Plan

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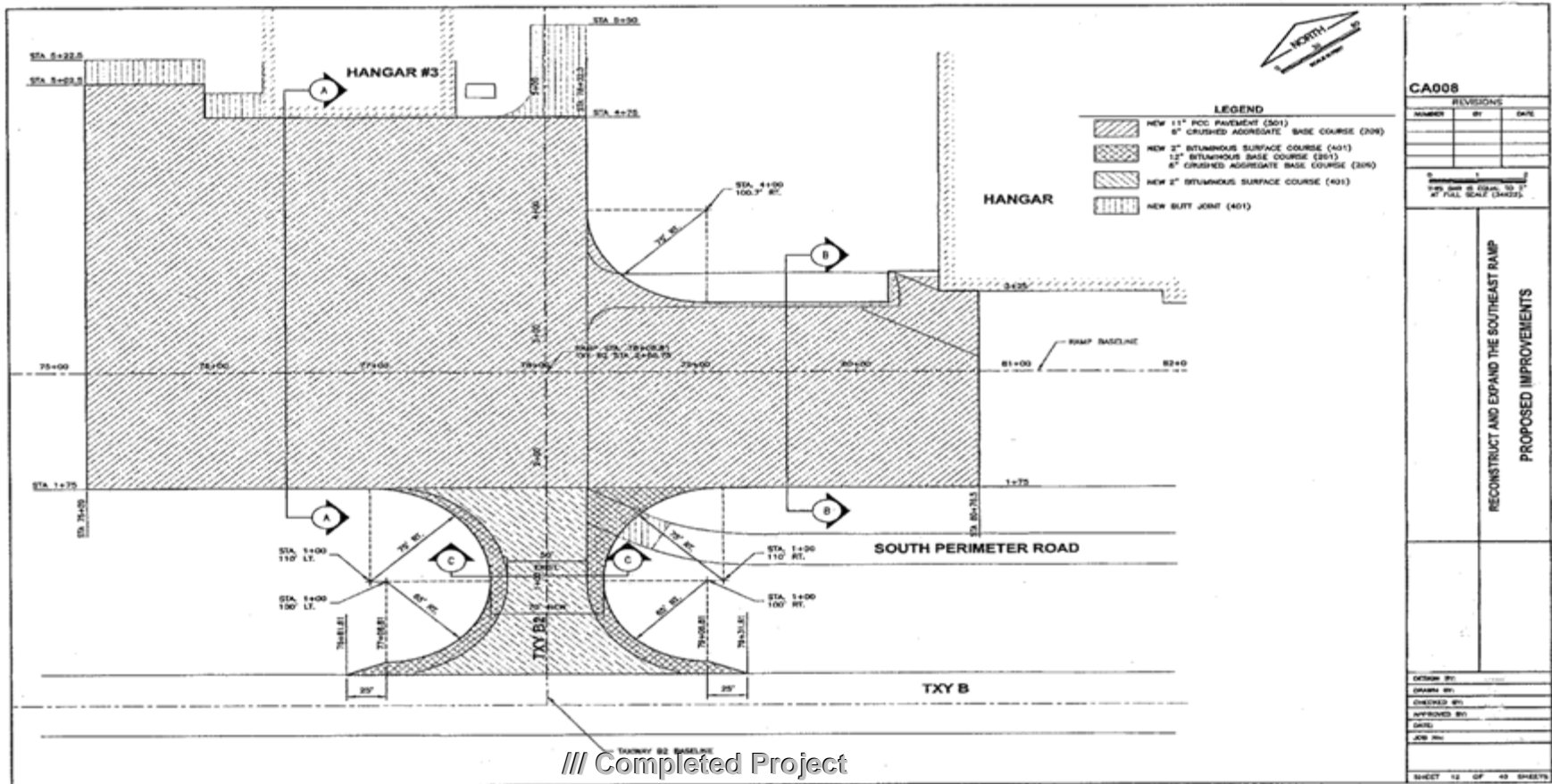
Construction Safety Plan

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Construction Safety Plan

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Construction Safety Plan


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[illegible]

This format is acceptable to depict your plan elements.

Remember to refer to the construction safety checklist, and AC 150/5370-2E to ensure your plan has all the required plan elements.

Construction Safety Plan Determination Letter



U.S. Department
of Transportation

Federal Aviation
Administration

February 23, 2009

Mr. John Smith
Name of Airport
Street Address
City, State, Zipcode

Western-Pacific Region
Airports Division

P.O. Box 92007
Los Angeles, CA 90009

(Name of Airport)
(City, State)
Construction Safety/Phasing Plan for Fence
Installation
Airspace Case No.

Dear Mr. Smith:

The Federal Aviation Administration (FAA) is in receipt of plans which were submitted for the above-mentioned study. We have conducted an Aeronautical Study to determine the effect of the proposed construction on the safe and efficient utilization of navigable airspace by aircraft.

Based on our study, we offer no objection from an airspace utilization standpoint provided:

1. The Air Traffic Control Tower Manager is invited to any construction meeting and any concerns are addressed.
2. The airport operator must provide proper coordination and management oversight throughout all phases of the project to address any construction equipment access to the movement area;
3. Temporary construction equipment is marked and lighted in accordance with Advisory Circular 70/7460-1;
4. The airport operator must issue and maintain NOTAMS regarding equipment that penetrates FAR Part 77 surfaces during construction. All such NOTAMS should be coordinated with and approved by ATCT;
5. All construction is performed in accordance with Advisory Circular 150/5370-2;
6. At least seventy two (72) hours prior to preconstruction meeting and/or construction start, the contractor shall notify the local Tech Ops SSC Manager (contact information can be obtained from the MOCC at 800-322-8879). The contractor should request to have a Tech Ops representative attend this meeting for the purpose of identifying all FAA facilities, their associated critical areas, their associated cables

Construction Safety Plan

Regional Guidance is coming



U.S. Department
of Transportation
**Federal Aviation
Administration**

Western Pacific Region

American Samoa, Arizona, California, Guam, Hawaii, Nevada

P.O. Box 92007
Los Angeles, California
90009

AWP REGIONAL POLICY GUIDANCE (XX-XX)

DATE:

SUBJECT: **Construction Safety Plans**

REFERENCES: FAR Part 1542: Airport Security

FAR Part 139: Certification and Operations: Land Airports
Serving Certain Air Carriers

Advisory Circular (AC) 150/5200-18: Airport Safety Self-
Inspection

Advisory Circular (AC) 150/5200-28: Notice to Airmen
(NOTAMS) for Airport Operators



Quiz: Is a CSP Needed?

The following Q&A is provided to assist you in understanding when a Construction Safety Plan is needed.

Quiz: Is a CSP Needed?

Q1: A runway reconstruction project, funded by AIP Grant

A1: Yes. The project is on the AOA and funded by AIP.

Q2: A perimeter fence is being replaced, with airport funds (no FAA funding)

A2: No. Although in the AOA, a CSP is not needed by FAA because PFC and AIP funds are not involved. FAA recommends the airport use a CSP for any project on the AOA.

Quiz: Is a CSP Needed?

Q3: An airport purchased Fire Equipment with AIP funds

A3: A CSP is not required. AIP funds were used, but not for a construction project on the airport AOA.

Q4: An Airport uses PFC Funds to rebuild and enlarge the ramp at the airline terminal.

A4: A CSP is required. The construction project is funded with PFC, is on the AOA, is at an Air Carrier Airport, and the project will likely affect airside operations.

Quiz: Is a CSP Needed?

Q5: An airport is planning a two-day project to remove a windsock in the RSA, using airport funds and construction workers.

A5: No, not needed by FAA but highly recommended, since project is on the AOA, and in the RSA.

Q6: The airport is making improvements to the terminal building, using entitlement funds.

A6: Not required, the construction is not on the AOA.

Q7: Using Q6 situation, a haul road will cross an active taxiway.

A7: Yes, the project now has a presence on the AOA.

Guidance/Reference Material

Advisory Circulars

- 150/5200-18: Airport Safety Self-Inspection
- 150/5200-28: Notice to Airmen (NOTAMS) for Airport Operators
- 150/5210-5: Painting, Marking, and Lighting of Vehicles Used on an Airport
- 150/5210-20 Ground Vehicle Operations on Airports
- 150/5300-13: Airport Design
- 150/5340-1: Standards for Airport Markings
- 150/5340-24: Runway and Taxiway Edge Lighting System
- 150/5370-2 Safety During Construction
- 150/5370-10: Standards for Specifying Construction of Airports

For More Information

Contact your Program Manager

Ruben Cabalbag (310) 725-3621

For airports in
Southern CA and AZ

Ray Chiang (650) 876-2778

For airports in
Northern CA and NV

For More Information

Regional Contacts:

Mike Agaibi

Regional Engineer
(310) 725-3632

George Aiken

Manager, Safety and
Standards (310) 725-3620